



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION	NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/936,729	,	09/17/2001	Kazuyuki Miya	L9289.01189	8954
24257	7590	7590 07/19/2004		EXAMINER	
		MILLER & MOSH	HOOSAIN,	HOOSAIN, ALLAN	
	1615 L STREET, NW SUITE 850			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20036			2645		
				DATE MAILED: 07/19/2004	5

Please find below and/or attached an Office communication concerning this application or proceeding.

•		Application No.	Applicant(s)				
		09/936,729	MIYA, KAZUYUKI				
Office Action Summary		Examiner	Art Unit				
		Allan Hoosain	2645				
	The MAILING DATE of this communication a						
Period fo	• •						
THE - External after - If the - If NC - Failu Any	ORTENED STATUTORY PERIOD FOR REP MAILING DATE OF THIS COMMUNICATION nsions of time may be available under the provisions of 37 CFR 1 SIX (6) MONTHS from the mailing date of this communication. In period for reply specified above is less than thirty (30) days, a reperiod for reply is specified above, the maximum statutory period for reply within the set or extended period for reply will, by status treply received by the Office later than three months after the mailed patent term adjustment. See 37 CFR 1.704(b).	I. I. 136(a). In no event, however, may a reply be tined thin the statutory minimum of thirty (30) day d will apply and will expire SIX (6) MONTHS from the cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).				
Status							
1)⊠	Responsive to communication(s) filed on 17	September 2001.					
2a)	This action is <b>FINAL</b> . 2b)⊠ This action is non-final.						
3)□	Since this application is in condition for allowance except for formal matters, prosecution as to the ments is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.						
Disposition of Claims							
5)□ 6)⊠ 7)□	Claim(s) 1-8 is/are pending in the application.  4a) Of the above claim(s) is/are withdrawn from consideration.  Claim(s) is/are allowed.  Claim(s) 1-8 is/are rejected.  Claim(s) is/are objected to.  Claim(s) are subject to restriction and/or election requirement.						
Applicat	ion Papers						
10)⊠	The specification is objected to by the Examination The drawing(s) filed on <u>17 September 2001</u> is Applicant may not request that any objection to the Replacement drawing sheet(s) including the correct the oath or declaration is objected to by the left to the second s	s/are: a)⊠ accepted or b)⊡ objected or b)⊡ objected drawing(s) be held in abeyance. Selection is required if the drawing(s) is ob	e 37 CFR 1.85(a). jected to. See 37 CFR 1.121(d).				
Priority (	under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  a) ■ All b) ■ Some * c) ■ None of:  1. ■ Certified copies of the priority documents have been received.  2. ■ Certified copies of the priority documents have been received in Application No  3. ■ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  * See the attached detailed Office action for a list of the certified copies not received.							
Attachmen	t(s)						
2) Notice (3) Information	te of References Cited (PTO-892) te of Draftsperson's Patent Drawing Review (PTO-948) mation Disclosure Statement(s) (PTO-1449 or PTO/SB/0 tr No(s)/Mail Date 2.	4) Interview Summary Paper No(s)/Mail D:  5) Notice of Informal F 6) Other:					

Art Unit: 2645

## DETAILED ACTION

## Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 2. Claims 1-8 are rejected under 35 U.S.C. 102(e) as being anticipated by Kobayakawa et al. (6,064,338).

As to Claim 1, with respect to Figures 1-5, **Kobayakawa** teaches a radio base station apparatus comprising:

AWC (reception weight setting means) for setting a plurality of reception weights (Figure 3, label and 4);

RVs (adaptive array antenna receiving means) for performing adaptive array antenna reception of signals from said plurality of communication terminals in directional patterns formed with said reception weights (Figure 3, labels 1 and 2); and

searcher (path search means) for combining power addition values for each directional pattern received by an adaptive array antenna and creating a vector and matrix (delay profile) (Figure 3, label 32 and 3),

performing finger assignment using this delay profile (Col. 9, lines 65-67), and

Art Unit: 2645

outputting despreading timing used in weight control for adaptive array antenna reception (Col. 10, lines 1-7).

As to Claims 2-3,5-7, with respect to Figures 1-5, **Kobayakawa** teaches a radio base station apparatus comprising:

AWC (reception weight calculating means) for grouping users into sectors (a plurality of communication terminals) and finding a reception weight for each sector (group) (Col. 6, line 65 through Col. 7, line 5 and Figure 3, label 4);

RVs (adaptive array antenna receiving means) for performing adaptive array antenna reception of signals from said plurality of communication terminals in directional patterns formed with said reception weights (Figure 3, labels 1 and 2); and

Searcher (path search means) for combining power addition values for each directional pattern received by an adaptive array antenna and creating a vector and matrix (delay profile) (Figure 3, label 32 and 3),

performing finger assignment using this delay profile (Col. 9, lines 65-67), and outputting despreading timing used in weight control for adaptive array antenna reception (Col. 10, lines 1-7).

As to Claim 4, **Kobayakawa** teaches the radio base station apparatus according to Claim 1, further comprising threshold value decision means for making matched filter (a threshold value) decision with respect to correlation (a power addition value), wherein said path search means finds a power combination value from output after said threshold value decision (Figure 7).

Art Unit: 2645

As to Claim 8, Kobayakawa teaches the limitations as recited and rejected for claims 2 and 4.

## Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Huang** (US 6,385,185) teaches generating coherent channel estimates for signals received at a base station.

**Uesugi et al.** (US 6,526,271) teach a system for improving system capacity using signal cancellation.

4. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks Washington, D.C. 20231 or faxed to:

(703) 872-9314, (for formal communications intended for entry)

Or:

(703) 306-0377 (for customer service assistance)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Allan Hoosain** whose telephone number is (703) 305-4012. The examiner can normally be reached on Monday to Friday from 8 am to 4:30 pm.

Art Unit: 2645

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Fan Tsang**, can be reached on (703) 305-4895.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Allan Hoosain Primary Examiner

7/12/04